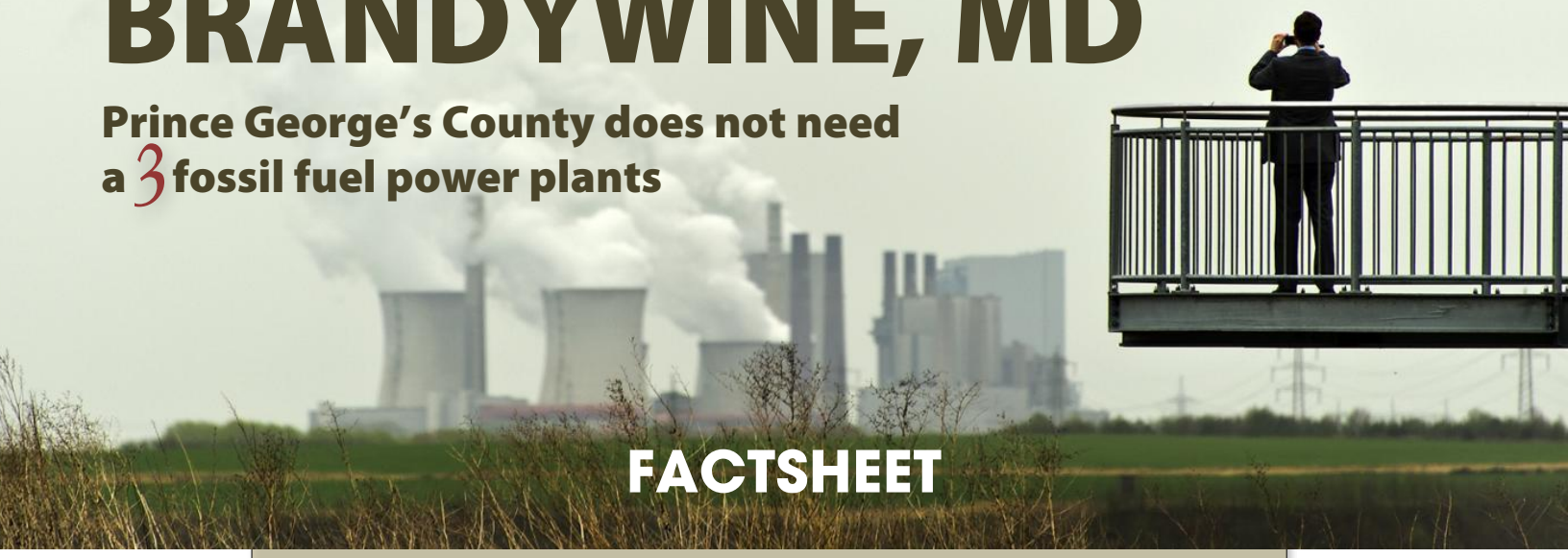
BRANDYWINE, MD

Prince George's County does not need a 3 fossil fuel power plants



FACTSHEET

EXISTING—

1. 289-megawatt gas-fired Panda Brandywine plant in Brandywine
2. 2,647-megawatt Chalk Point coal/oil/gas-fired power plant in *Eagle Harbor* (burning 82% coal, 16% gas and 1.5% oil in 2014)

UNDER CONSTRUCTION—

3. 661-megawatt gas-fired CPV St. Charles plant under construction in Waldorf (approved in 2012)

APPROVED CONSTRUCTION—

4. 755-megawatt gas-fired Keys Energy Center in Brandywine
5. 990-megawatt gas-fired Panda Mattawoman plant in Brandywine

http://www.btbcoalition.org/index_titleVI.html#

Tanked Property Values — Economic Impacts

These harmful impacts and others have shown to depress local property values. Both home-buyers and renters are less willing to pay for housing near fossil fuel-fired power plants than they are for other comparable housing, depressing property values. Housing prices decline by between three and five percent, on average, within two miles of gas-fired and coal-fired power plants. When the power plant is large (>275 megawatts), the approved ones for Brandywine are over 7-990 megawatts housing prices decline by **5.5 percent**, on average with one power plant and we have 3 approved. Brandywine, which will have three large fossil fuel-fired power plants as a result of the Mattawoman approval, is at risk of even greater declines in property values, compared to what property values would be without the power plants.

CPCN will adversely and disproportionately impact the black community in and around Brandywine by:

1. Contributing to air pollution in a black community that is already overburdened by several local sources of pollution and afflicted by poor air quality;
2. Contributing to noise in a black community already afflicted by noise
3. Contributing to traffic congestion in a black community already afflicted by traffic congestion and lack of public transportation; and
4. Depressing property values in a black community already afflicted by lack of economic opportunity

AIR POLLUTION & YOUR HEALTH:

Ozone causes serious harm to human health, as Maryland recognized in its state implementation plan for ozone:

> "When it is breathed into the lungs, ozone reacts with lung tissue. It can harm breathing passages, decrease the lungs, working ability and cause coughing and chest pains; eye and throat irritation; breathing difficulties even for healthy individuals, but especially for those with respiratory problems such as allergies, asthma, bronchitis and emphysema; and greater susceptibility to respiratory infection. According to EPA's 2013 Integrated Science Assessment for Ozone, ozone exposures are also shown to increase risks of hospitalization for acute myocardial infarction, coronary atherosclerosis, stroke, and heart disease, even at ambient ozone levels well-below current air quality standards."

	Facility-wide Emission Limit (tons per year) Pollutant	
	PANDA MATTAWOMAN	KEYS ENERGY
Particulate Matter (PM)—Filterable	82.9	77.3
Particulate Matter less than 10 microns (PM10)—Filterable & Condensable	149.8	94.5
Particulate Matter less than 2.5 microns (PM2.5)—Filterable & Condensable	146.8	no limit
Sulfur Dioxide (SO_2)	19.6	no limit
Nitrogen Oxides (NO_x)	220.7	157.1
Carbon Monoxide (CO)	558.4	203.9
Volatile Organic Compounds (VOCs)	144.1	56.4
Sulfuric Acid Mist (SAM)	11.2	no limit
Greenhouse Gas (GHG) as Carbon Dioxide Equivalent (CO_2e)	3,738,364 *	2,467,912 *

*These numbers are incorrect and low, because EPA used the scientifically outdated lower number for methane's impacts on global warming (25x instead of 86x), and also didn't count methane leaks throughout the gas system leading to the power plant.

EPA has designated Prince George's County as already having illegally high and unhealthy levels of ground-level ozone, which triggers asthma attacks. Nitrogen oxide pollution contributes to ground level ozone, mostly on hotter summer days. In the summers, the prevailing winds blow from the southwest to the northeast (in winter, it's northwest to southeast). This means that in the summer, when the ozone levels are most dangerous, the plumes from four of the five power plants all line up from St. Charles to Brandywine, directing that pollution to the more populated areas of the county, around Upper Marlboro (which also is home to the county's landfill, the state's only sewage sludge incinerator and a possible new trash incinerator being explored by the county – all sources which are comparable to major power plants when it comes to air pollution). This presents a serious public health problem, as the clustering and lining up of the plumes during summer is especially dangerous.

The U.S. Environmental Protection Agency's August 19th, 2015 comments on the Panda Mattawoman plant state the following concerns with their proposed air pollution permit:

- *Panda's particulate matter (PM, or soot) emissions limits aren't strong enough.*
- PM contributes to heart attacks, aggravated asthma and other heart, lung and respiratory problems.
- *There are no limits on lead pollution,* even though the environmental review document discusses lead emissions. Lead causes numerous health problems including ADHD, learning disabilities, violent behavior, low birth weight, kidney problems and much more.
- *The proposed emissions limit for ammonia is about 5 times higher than the largest emitter of ammonia pollution in the state.*
- *On carbon monoxide pollution, EPA writes: "The emissions for Brandywine seem very high given the nature of the source."*
- *Panda Mattawoman failed to look at all other pollution sources* in the analysis of the cumulative effect of this new plant plus other sources such as Chalk Point.

PIPELINES & POWER LINES—

Multiple new gas pipelines are planned to bring natural gas up from Cove Point in Calvert County. These pipelines will destroy wetlands on their way to Brandy- wine, as Mattawoman Watershed Society and others have objected to. Addi- tional power lines will likely also be needed, which could means more herbicide spraying along rights-of-way.

Cooling with sewer water? An additional 10–15 mile pipeline would bring sewage effluent from WSSC's Piscataway sewage treatment plant to Brandy- wine to use as cooling water instead of fresh water. This pipeline requires approval from the Prince George's Department of Permits and Inspections, WSSC and the Maryland Highway Administration. Sewage effluent (the liquids that are separated out at a sewage treatment plant) is a highly contaminated solution containing disinfection byproducts, metals and numerous classes of discarded and excreted biologically active chemicals such as active pharmaceutical ingredients and personal care products, endocrine disrupting compounds, mutagenic cytotoxins and others. Cooling with this sewage effluent means evaporating this contaminated water into the air above Brandywine.

ENVIRONMENTAL JUSTICE—

The community is 66% African-American within 10 miles of the two new power plants planned for Brandywine. It's a classic case of what is known in the field as environmental racism, where polluting industries disproportionately impacts people of color. The Civil Rights Act of 1964 makes it illegal for federally- funded entities (including the state of Maryland and the County) to take actions that have a discriminatory effect on racial minorities. Approving these power plants is a violation of the Civil Rights Act and would warrant the filing of a legal complaint with EPA's Office of Civil Rights.

POWER PLANT CLUSTERS: ONE OF THE WORST—

The power plants approved in Brandywine area will host more fossil fuel power plant capacity than 99.9% of all places in the U.S. Looking just at the communities with existing fossil fuel power plants, the proposed Brandywine area power plant cluster would be worse than 98% of such communities.

METHANE GAS LEAKS—

Natural gas is primarily methane. *Methane is now understood to be 86 times more potent than carbon dioxide (CO_2) for global warming, over a 20-year time frame.* Because so much methane leaks out of the gas system—from the fracking well, through the pipelines and distribution systems to the end uses like power plants—using natural gas is actually worse for the climate than burning coal. Moving from coal to gas is making it harder to stabilize climate change. *We need to move directly to conservation, efficiency, wind, solar and energy storage, not more fossil fuels.*

Obama's Clean Power Plan, released in August 2015, does not allow new gas-fired power plants (anything that started construction after Jan. 8, 2014) *to qualify as a means to comply with this new law* aimed to address global warming pollution. Expanded use of existing power plants, like Chalk Point and Panda Brandywine is permitted, but the state will not be allowed to meet its new obligations using these new gas-fired power plants.

PEAK GAS: CHEAP GAS IS OVER SOON—

Gas consumption is rising due to temporarily cheap prices and a production surplus from fracking. Hundreds of new gas-fired power plants are proposed in the U.S., as are 30 liquefied natural gas (LNG) export terminals, and other major gas using facilities. This spike in demand is coming at the same time that shale gas production is starting to peak and is likely to level off and decline by the time these new power plants are built. This all adds up to gas prices shooting back up in the coming years, while clean wind and solar energy is becoming cheaper than gas. Increased gas prices means a repeat of what took place 10-15 years ago, as gas prices shot up and many of the 400 new gas-fired power plants built 10-20 years ago were idled because fuel was too expensive.

JOBS—

Wind and Solar are the leading job creators. Natural gas is dead last in job creation in the energy sector.

Job-years per Gigawatthour of production			Jobs per $1 million …	invested	output
Solar PV Residential (<1 MW)	1.31		Mass transit	22.3	11
Solar PV Large Commercial	0.97		Building retrofits	16.7	7
Solar PV Utility Scale	0.69		Solar	13.7	5.4
Nuclear	0.42		Wind	13.3	4.6
Solar Thermal—Concentrated	0.41		Smart Grid	12.5	4.3
Coal	0.11		Coal	6.9	1.9
Wind		0.1	Oil	5.2	0.8
Natural gas	0.04		Natural gas	5.2	0.8

The county would be far better off in job creation, clean air, climate impacts and more, if it were to incentivize solar and prevent large gas-fired power plants from competing with clean energy.

PUBLIC INVOLVEMENT— and why this work should matter to YOU!

The adverse impacts described in the Title VI complaint the Brandywine will be borne disproportionately in a 72% black community the residents who live, work, and go to school in the vicinity of the Brandywine Mattawoman gas plant and other local pollution sources. We cannot be complacent; Civic engagement is "working to make a difference in the civic life of our community and developing the combination of knowledge, skills, values and motivation to make that difference. It means promoting the quality of life in a community, through both political and non-political processes. We have to stand up for Brandywine and a Quality of Life. **"GET INVOLVED"** at www.btbcoalition.org or www.facebook.com/btbcoaition.org and **"LIKE US ON FACEBOOK"**, and join our mailing list at btbcoalition@gmail.com.

When you DO NOT participate in your Community Coalition meetings then ones Public Views and Policies Does Not Represent all Citizens. Therefore, community residents must participant to best represent a diverse public view for how you see your neighborhood.

PUBLIC INVOLVEMENT— Next STEPS.

1. Support the Title VI Complaint by signing on as a supporter. Sign our signup sheet or send and email to btbcoalition@gmail.com
2. Participate in our community meetings listed on our events Fackbook.com/btbcoalition page on June 18, & July 28th.
3. Map your/our community priorities through community evaluation and how you see your community. Join our group and mailing list.
4. Join the BTB Coalition in creating a sustainable all-inclusive community plan that effectively addresses tough Brandywine challenges while simultaneously building on the collective power of communities voices to create, "homegrown, locally owned, solutions to our Brandywine neighborhood's problems being addressed having a collective impact.